

**CLAIMS:**

1. A method for hydroisomerizing a waxy feed to produce improved yield of a lube basestock which comprises:
  - (a) contacting the waxy feed under hydroisomerization conditions with a catalyst comprising a unitized mixed powdered pellet catalyst, said catalyst comprising:
    - (i) a first dewaxing component selected from 8, 10 and 12 ring molecular sieves and mixtures thereof having a metal hydrogenation component dispersed thereon;
    - (ii) a second isomerization component which is an amorphous inorganic oxide said second component having a metal hydrogenation component dispersed thereon; and
    - (iii) wherein the first and second components are present in a ratio such that when evaluated in the conversion of methyl cyclohexane at 320°C to 1,1-dimethylcyclopentane, 1,2-dimethylcyclopentane, 1,3-dimethylcyclopentane and ethylcyclopentane, the catalyst will provide a trans-1,2-/trans-1,3-dimethylcyclopentane ratio in the range of less than about 1 and a selectivity to ethylcyclopentane, at 10% conversion, of at least about 50%.
2. The method of claim 1 wherein the dewaxing component is at least one of a 10 ring and 12 ring molecular sieve.
3. The method of claim 1 wherein the isomerization component is at least one of silica, alumina, titania, zirconia, silica-alumina and silica-magnesia.

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4. The method of claim 3 wherein the isomerization component is at least one of silica, alumina, titania, and zirconia.
5. The method of claim 1 wherein the hydrogenation component is a Group VIII metal.
6. The method of claim 5 wherein the hydrogenation component is selected from Pt, Pd, and mixtures thereof.
7. The method of claim 6 wherein the hydrogenation component is dispersed in an amount ranging from about 0.1 wt.% to about 30 wt. %.
8. The method of claim 1 wherein the amorphous inorganic oxide is promoted or doped with yttria, rare earth oxides, boria and magnesia.
9. The method of claim 1 wherein the feed is a feed that is solvent dewaxed to a pour point of up to +10°C.
10. A method for hydroisomerizing a waxy feed to produce improved yield of a lube basestock which comprises:
  - (a) contacting the waxy feed under hydroisomerization conditions with a catalyst comprising a unitized mixed powdered pellet catalyst, said catalyst comprising:
    - (i) a first dewaxing component selected from 8, 10 and 12 ring molecular sieves and mixtures thereof having a metal hydrogenation component dispersed thereon;
    - (ii) a second isomerization component which is an amorphous inorganic oxide said second component having a metal hydrogenation component dispersed thereon; and

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- (iii) wherein said first and second components are present in a ratio such that when evaluated in the conversion of methyl cyclohexane at 320°C to 1,1-dimethylcyclopentane, 1,2-dimethylcyclopentane, 1,3-dimethylcyclopentane and ethylcyclopentane, the catalyst will provide a trans-1,2-/trans-1,3-dimethylcyclopentane ratio in the range of at least 1 and a selectivity to ethylcyclopentane, at 10% conversion, of at least about 50%.

11. A method for hydroisomerizing a waxy feed to produce improved yield of a lube basestock which comprises:

- (a) contacting the waxy feed under hydroisomerization conditions with a catalyst comprising a unitized mixed powdered pellet catalyst, said catalyst comprising:
  - (i) at least one first component selected from 8, 10 and 12 ring molecular sieves, and mixtures thereof, having a metal hydrogenation component dispersed thereon;
  - (ii) at least one second component selected from 8, 10 and 12 ring molecular sieves, and mixtures thereof, having a metal hydrogenation component dispersed thereon; and
  - (iii) wherein said first and second components are present in a ratio such that when evaluated in the conversion of methyl cyclohexane at 320°C to 1,1-dimethylcyclopentane, 1,2-dimethylcyclopentane, 1,3-dimethylcyclopentane and ethylcyclopentane, the catalyst will provide a trans-1,2-/trans-1,3-dimethylcyclopentane ratio in the range of less than about 1 and a

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selectivity to ethylcyclopentane, at 10% conversion, of at least about 50%.

12. The method of claim 11 wherein the dewaxing component is at least one of a 10 ring and 12 ring molecular sieve.

13. The method of claim 11 wherein the 10 and 12 ring molecular sieves are selected from alumino silicates and alumino phosphates.

14. The method of claim 13 wherein the alumino silicates are selected from ZSM-5, ZSM-11, ZSM-12, ZSM-22, ZSM-23, ZSM-35, natural and synthetic ferrierites, ZSM-48, ZSM-57, SSZ-31, Beta, Mordenite, Offretite, ECR-42, MCM-71, and ITQ-13.

15. The method of claim 14 wherein said at least one first component is ITQ-13 and said at least one second component is selected from ZSM-48, ZSM-35, ZSM-22, ZSM-23, ZSM-57, SSZ-31, and mixtures thereof.

16. The method according to claim 14 wherein said at least one first component is selected from ITQ-13, ZSM-57, and mixtures thereof, and said at least one second component is selected from ZSM-22, ZSM-23, ZSM-35, ZSM-48, SSZ-31, and mixtures thereof.

17. The method according to claim 11 wherein said first and second components are present in a ratio such that when evaluated in the conversion of methyl cyclohexane at 320°C to 1,1-dimethylcyclopentane, 1,2-dimethylcyclopentane, 1,3-dimethylcyclopentane and ethylcyclopentane, the catalyst will provide a trans-1,2-/trans-1,3-dimethylcyclopentane ratio in the range of less at least 1 and a selectivity to ethylcyclopentane, at 10% conversion, of at least about 50%.